

Listing of Claims:

1. (Previously presented) Power converter comprising:

a current path that includes an inductor having an input for receiving energy from a power supply and an output capacitor for providing an output voltage;

an additional current path, beginning at an output of the inductor and including a circuit element configured to open and close the additional current path, said additional current path formed such that a current flowing through said additional current path reaches basically immediately a desired value, when said additional current path is opened;

a first switch coupled between the power supply and the inductor, the first switch configured to provide the energy from the power supply to the inductor; and

a feedback circuit configured to control the circuit element to open said additional current path, when said output voltage across said output capacitor reaches a predetermined maximum value,

wherein the inductor provides the energy from the power supply to a parallel arrangement of the output capacitor and the additional current path.

2. (Previously presented) Power converter according to claim 1, wherein said additional current path comprises a controllable current source.

3. (Previously presented) Power converter according to claim 1, wherein said additional current path is a low impedance path when open.

4. (Original) Power converter according to claim 3, wherein said low impedance path comprises a resistor.

5. (Previously presented) Power converter according to claim 1, wherein said feedback circuit is configured to control the circuit element to open said additional current path for a predetermined time.

6. (Previously presented) Power converter according to claim 1, wherein said feedback circuit is configured to control the circuit element to close the additional current path when a second predetermined output voltage is reached.
7. (Previously presented) Power converter according to claim 1, wherein said feedback circuit is configured to control the circuit element to open and close the additional current path based on said output voltage.
8. (Previously presented) Power converter according to claim 1, wherein said feedback circuit is configured to control the circuit element to open and close the additional current path based on a current through said inductor.
9. (Original) Power converter according to claim 1, wherein said power converter is one out of a group of a buck converter, a boost converter and a buck/boost converter.
10. (Previously presented) Method for controlling a power converter, the power converter including a current path having an inductor with an input for receiving energy from a power supply and an output capacitor for providing an output voltage, said method comprising:
  - providing the energy from the power supply to the inductor via a switch; and
  - opening a controllable additional current path arranged to begin at an output of the inductor and in parallel to said output capacitor, when said output voltage across said output capacitor reaches a predetermined maximum value, such that a respective desired current flows basically immediately through said additional current path;
  - wherein the inductor provides the energy from the power supply to the parallel arrangement of the output capacitor and the additional current path.
11. (Previously presented) The method of claim 10, wherein the additional current path includes a controllable element for opening and closing the additional current path.

12. (Previously presented) The method of claim 11, further comprising using the controllable element to inhibit the energy provided by the inductor from flowing through the additional current path when the additional current path is closed.

13. (Previously presented) The method of claim 10, further comprising opening the additional current path for a predetermined amount of time.

14. (Previously presented) The method of claim 10, further comprising closing the additional current path when the output voltage reaches a second predetermined value.

15. (Previously presented) The method of claim 10, further comprising controlling opening and closing of the additional current path responsive to a current through the inductor.

16. (Previously presented) Power converter according to claim 1, wherein the circuit element is a controllable element for opening and closing the additional current path.

17. (Previously presented) Power converter according to claim 16, further comprising a second switch that is coupled between the inductor and ground and that is coupled to the first switch.

18. (Previously presented) Power converter according to claim 16, wherein the controllable element inhibits the energy provided by the inductor from flowing through the additional current path when the additional current path is closed.